



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: William C. Bullard
Serial No. 09/276,207
Filed: 03/25/1999
For: **CAPTURING QUALITY OF SERVICE**

Examiner: Akers, Gregory
Art Unit: 2164

Commissioner for Patents
Washington, D.C. 20231

Sir:

The present **APPEAL BRIEF** is filed in triplicate pursuant to 37 C.F.R. § 1.192. Applicant also encloses a credit card form authorizing payment in the amount of \$320.00 as required by 37 C.F.R. § 1.17(c). If any additional fees are required in association with this appeal brief, the Director is hereby authorized to charge them to Deposit Account 50-1732, and consider this a petition therefor.

APPEAL BRIEF

(1) REAL PARTY IN INTEREST

The real party in interest is Nortel Networks Limited of 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, Canada H4S 2A9.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences to the best of Applicant's knowledge.

(3) STATUS OF CLAIMS

Claims 1-20 are pending and rejected with the rejection made final. Applicant appeals from the rejection of claims 1-20.

(4) STATUS OF AMENDMENTS

All amendments have been entered.

(5) SUMMARY OF THE INVENTION

The present invention is directed to a service for monitoring characteristics, such as quality of service, delivered to consumers of a computer network service, and billing the

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consumer according to the characteristics actually delivered to the consumer. Specifically, a consumer may purchase a certain quality of service from a networking transmission service, i.e., a computer network service, expecting service to conform to the quality purchased. The present invention monitors the quality of service delivered to the consumer and bills the consumer according to the quality of service actually delivered. In an exemplary embodiment, the consumer purchases internet access and the quality of service is measured by packet loss. If the packet loss exceeds that allowed by the quality of service purchased by the consumer, the consumer is billed for the lower quality of service.

(6) ISSUES

Whether claims 1-3 and 11-14 are unpatentable under 35 U.S.C. § 103(a) over Egendorf.

Whether claims 4-5 and 15-16 are unpatentable under 35 U.S.C. § 103(a) over Egendorf in view of Hilt et al.

Whether claims 6-10 and 17-20 are unpatentable under 35 U.S.C. § 103(a) over Egendorf and further view of Melen et al.

(7) GROUPING OF CLAIMS

Claims 1 and 6-10 stand or fall together.

Claims 2-4 stand or fall together.

Claim 5 stands or falls alone.

Claims 11, 12 and 17-20 stand or fall together.

Claims 13-15 stand or fall together.

Claim 16 stands or falls alone.

(8) ARGUMENT

A. Introduction

The present invention is not rendered obvious by the references of record because the references are not within the relevant field of prior art. Even if the references are within the relevant field of prior art, they do not teach all of the claimed elements, either singly or in combination. Thus, the Patent Office has failed to make a *prima facie* case for obviousness, and

the claims are allowable over the references of record.

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B. Summary of the References

1. Egendorf

Egendorf is directed to an internet billing method. Specifically, an access provider establishes relationships with vendors and customers. When a customer orders an item or service from a vendor, the order information is submitted to both the access provider and the vendor. The access provider then references the contract with the customer for a determination of how to bill the customer. The access provider bills the customer according to the agreement, and pays the vendor from the funds collected from the customer. The access provider may keep a portion of the funds as a service fee. The primary motivation for this arrangement is to prevent customer and vendor account numbers from being transmitted over the internet and potentially intercepted.

2. Hilt et al.

Hilt et al. is directed to another internet billing method. This method is an arrangement between a bank, a consumer, and a vendor. The vendor sends a bill to the consumer for services rendered. The bill may be an email notice or the like. The consumer then contacts the bank and authorizes the bank to pay the bill. As part of the authorization, the consumer indicates the payment date, the payment amount, the consumer's account number with the vendor, a source of payment, and the vendor's billing identification number. The bank then sends a payment message to a payment network, and the payment network associates the payment information with the vendor's reference number. The payment network combines this data and sends the payment message to the vendor's bank. The consumer's bank debits the account, and pays the payment network. The vendor's bank receives a portion of the funds from the payment network.

3. Melen et al.

Melen et al. discloses an internet billing technique where a consumer purchases products over the internet and is billed for those products on another bill, such as a telephone bill. These billings may be performed based on the connection time, a pulse per connection, a fixed price, or some combination of these. The consumer initially creates an account with a telephone company

and a connection is set up to the network through the telephone company. The vendors make agreements with the telephone company as well. Each time a connection is made with the telephone company, the user interface data is collected and the vendor's data is identified when an article or service is purchased. The data are combined, and the transaction is completed.

C. The Basic Test for Obviousness

1. The Statute

Section 103(a) of the Patent Act provides the statutory basis for an obviousness rejection and reads as follows:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The Interpretation

Courts have interpreted 35 U.S.C. § 103(a) as a question of law based on underlying facts. As the Federal Circuit stated:

Obviousness is ultimately a determination of law based on underlying determinations of fact. These underlying factual determinations include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) the extent of any proffered objective indicia of nonobviousness.

Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998) (internal citations omitted). The critical inquiry in this case is the scope and content of the prior art. In this case, the references cited are not properly within the scope of the relevant prior art, and even if they are, they do not teach or suggest the claimed invention.

The first test, as recognized by the MPEP, is to determine if the reference is analogous, and thus within the scope of the prior art. MPEP § 2141.01(a).

In order to rely on a reference as a basis for a rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

In re Oetiker, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Further,

[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.

In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992). Only if the reference passes this test may the reference be considered within the scope of the prior art. The references cited in the present case are not within the same field of endeavor, nor do they commend themselves to an inventor's attention when an inventor is confronted with the problem solved by the present invention.

If the references are within the scope of the prior art, the Patent Office must still show where in the combination of references all of the claim elements are taught or suggested. MPEP § 2143.03. While the Patent Office is entitled to give claim terms the broadest reasonable interpretation, the standard still references reasonableness. In the present case, no reasonable interpretation of "characteristic" or "level of service" can be found in the references, and the Patent Office has failed to make a *prima facie* case of obviousness.

D. The References are Not Analogous

Applicant is solving the problem of providing networking transmission service to consumers and billing the consumers appropriately. As described above, and as further explained in the specification, applicant is, in an exemplary embodiment, measuring packet loss for a consumer that purchases internet access. If the packet loss exceeds that allowed by the quality of service purchased by the consumer, the consumer is billed for the lower quality of service. This is not the same as the trying to arrange a way to bill a consumer for purchases of goods or services from online vendors. The present invention is focused on network usage and access, not what the consumer does once they are online. What the consumers do once they are online is the focus of the cited references. Thus, the references are not in the same field of endeavor.

Further, the references are not of a character that commends itself to the problem confronting the present inventors. An inventor of ordinary skill in the art trying to provide a fair solution to bill consumers for quality of service for computer network access would not look to online purchasing models relating to complex tri-party arrangements for insight.

While both the invention and the references are concerned with billing, the similarity ends there. The present invention is directed to billing consumers for network access and billing

them according to the quality of service that they receive without any concern for online transmission of financial information. The references, in contrast, are directed to billing consumers for online purchases, and further to billing the consumers for online purchases through a third party so that the consumer's financial information need not be transmitted over the network at the risk of interception.

The Patent Office's one response to Applicant's arguments that the references are non-analogous has been to state "[a]ll references are in the same field as they require high quality of service in communications for network subscribers in the billing syustems [sic] and financial transaction systems employed."¹ This terse statement is not particularly insightful or helpful. Applicant's field of endeavor is not requiring high quality of service, but rather providing networking transmission service to consumers and billing the consumers appropriately. In fact, the whole point of Applicant's invention is that sometimes quality of service drops below what the consumer has paid for, and thus, the consumer should be billed at a lower rate. There is no "requiring high quality of service," just an acknowledgment that high quality of service may be unattainable. Further, the references themselves are not facially concerned with requiring high quality of service, but rather are concerned with facilitating financial transactions between consumers and vendors over the Internet. In short, this assertion on the part of the Patent Office does not convey that the application and the references are in the same field of endeavor.

E. The References, Singly or In Combination, Do Not Show the Claimed Invention

Whether or not the references are analogous is ultimately a question a fact, and reasonable minds may differ. However, even if it is determined that the references are analogous, the references, singly and in combination, do not teach or suggest the claimed invention. When a reasonable interpretation is applied to the claim elements, the references, singly or in combination, do not show all of the claim elements, and the Patent Office has failed to make a *prima facie* case of obviousness.

Perhaps if the references were more relevant to the present invention, Applicant would be able to argue with precision how the references and the claimed invention differ, but because the references and the claimed invention really have nothing to do with one another, Applicant is forced to rely on an examination of the cited passages compared to the claim language. The

¹ Office Action of 26 March 2002, page 11

Patent Office has compounded this problem by failing to articulate with precision which elements in the cited passages are deemed to be equivalent to which claim elements. Applicant should not have to argue every possible interpretation of a passage or formulate the Patent Office's arguments and then refute them during prosecution.

1. Claims 1 and 6-10

Claim 1 was rejected under 35 U.S.C. § 103(a) in view of Egendorf alone. Claim 1 recites "providing a computer network subscriber with a networking transmission service having a first characteristic. . . ." The Patent Office lumps these elements with the next phrase "observing at the network" and points to col. 1, lines 4-6 and col. 1, line 54-col. 2, line 8 of Egendorf for this teaching. The first passage states in its entirety "The present invention relates to a method of billing for commercial transactions over the Internet. The Internet is a vast worldwide interconnection of com-. . . ." The second passage is a bit more voluminous and is set forth in the margin.² The passages do indicate that there may be an Internet and that consumers may purchase items therethrough from vendors. Also mentioned is an Internet access provider, although this entity is not a vendor from which the consumer is purchasing anything. Thus, there is no teaching or suggestion of a networking transmission service having a first characteristic. No characteristics are discussed at all in the passages. In short, there is no suggestion of a characteristic, much less observing.

In response to Applicant's arguments on the point that there is no characteristic taught or suggested by the reference, the Patent Office appears to suggest that secure networks imply a certain quality of service, and since the reference teaches a secure network, the network must have a certain quality of service. Specifically, the Patent Office replies "Egendorf's internet billing method is convenient for both the vendor and the customer (col 1 lines 1-3) relating to the

² "The main object of the present invention is to create a new business opportunity for telephone companies, cable television companies, existing Internet access providers, and companies offering financial services by creating a way for them to offer their subscribers a method of securely buying and selling goods and services of any value over the Internet.

"Another object of the present invention is an Internet billing method which is cost effective for transactions having transaction amounts ranging from pennies to a few dollars.

"Still another object of the present invention is to provide a secure method of billing commercial transactions over the Internet.

"A further object of the present invention is an Internet billing method which is simple to use from both the customer's point of view and that of vendors on the Internet.

"Yet another object of the present invention is a billing method which can be used by a large number of existing Internet users without requiring major changes in how the users customarily behave and conduct commercial transactions."

quality of service conducted on the Internet.”³ It is irrelevant if the method is convenient for the vendor and customer as that is not what is claimed. Further, **nowhere** in the reference is there a suggestion that the reference is concerned with a characteristic such as the quality of service. In fact, an electronic word search of the reference shows that the term “quality of service” does not appear in the document. The next statement in the Response to Arguments section, “[m]oreover, Egedorf’s invention provides network security (and consequent quality) service for the customer (col 2 lines 42-50)” is not supported. There is no teaching or suggestion that network security is at all the same as a quality of service characteristic. The Patent Office states that “[t]o maintain high communications security, there must be no signal degradation or loss.” Again, this is not supported. High security may be achieved by encryption independent of signal degradation or loss. A signal may be secure and unintelligible, and nothing in the reference suggests otherwise, despite the Patent Office’s assertion that “[m]inimized packet loss (signal degradation) is inherent in such high security computer communications.” In fact, it could be argued that an extremely degraded signal is the most secure because no one can read it. The signal may be useless, but it is secure. There has been no showing that secure networks are the equivalent of a certain quality of service characteristic, much less that the security of the networks of Egedorf are claimed characteristics.

Likewise, nothing in the cited passage teaches or suggests “observing at the network.” The cited passages have been dissected above, and will not be repeated here, but a thorough examination reveals no teaching or suggestion that the secure network of Egedorf is ever observed, and let alone observed to see if the provided service has a second characteristic.

The Patent Office next asserts that col. 2, lines 11-27 provides “that the provided service to the computer network subscriber has a second characteristic of vendor. . . .” This passage is set forth in the margin.⁴ It is unclear what purpose the vendor language has in the rejection, or if

³ Final Office Action of 26 March 2002, p. 10, Response to Arguments section.

⁴ “A provider establishes an agreement with a customer, and a second agreement with a vendor, wherein the provider agrees with the customer and the vendor to bill for products and services purchased over the Internet by the customer from the vendor. Associated with the customer agreement are one or more billing accounts to which purchases may be charged. Associated with the vendor agreement are one or more methods of remitting funds to the vendor. The provider creates access to the Internet for the customer through the provider’s equipment. When the customer orders a product or service over the Internet from the vendor, the provider obtains transactional information transmitted between the customer and the vendor including a transaction amount relating to the ordered product or service and the provider then bills the transaction amount to a customer billing account and remits a portion of the transaction amount to the vendor.”

the Patent Office is attempting to equate vendors with characteristics in this sentence. Nothing in this passage mentions different levels of security, which was the implied characteristic from the Response to Arguments section; nor is there any teaching or suggestion in the passage that quality of service levels are observed to see if there is a difference between what was provided and what was promised. The Patent Office's failure to indicate which portions of this passage are deemed to be the equivalent of which claim terms makes a further analysis purely hypothetical. Applicant should not have to construct the Patent Office's arguments to refute them.

The final clause of claim 1 recites "billing the computer network subscriber for the networking transmission service having the second characteristic rather than for the service having the first characteristic." The Patent Office cites col. 2, line, 11-19, lines 28-36, col. 4 line 56-col. 5 line 10, and col. 6 lines 36-46. The first cited passage has already been reproduced in the margin and describes the three-way agreement by which a consumer purchases goods or services, pays a provider, and the provider pays the vendor of the goods or services. There is nothing about billing the subscriber for a service having a different characteristic rather than for the service having a first characteristic.

The second cited passage is reproduced in the margin.⁵ This passage talks about the various accounts that the vendor, consumer, and provider may have. A close reading of the passage does not indicate billing the consumer for a service having a second characteristic. The Patent Office's failure to indicate which portions of this passage are deemed to be the equivalent of which claim terms makes a further analysis purely hypothetical. Applicant should not have to construct the Patent Office's arguments and then refute them. Citation to this passage in fact seems to confirm the irrelevance of the reference to the claim language because there are no services with two levels of characteristics, and there is no change in the billing to the consumer based on the different characteristics delivered to the subscriber.

⁵ "Which accounts are used may be specified in the agreements made between the provider and the customer and between the provider and the vendor, or may be specified in the transactional information. If specified in the transactional information, the selection of account can be made by referencing the type of account (e.g., "VISA", "phone bill"), or the position of that account on a predetermined list (e.g., "the 3rd account"), and does not require that any actual account numbers be transmitted." (col. 2, lines 28-36)

The third cited passage is reproduced in the margin.⁶ Again, this passage is a discussion of the accounts set up between the various entities involved in the three-way transaction. A close reading of the passage does not indicate billing the consumer for a service having a second characteristic. The Patent Office's failure to indicate which portions of this passage are deemed to be the equivalent of which claim terms makes a further analysis purely hypothetical.

The next cited passage is set forth in the margin.⁷ This passage continues to discuss how the billing can be handled amongst the various accounts that the consumer of the goods or services may have with various entities that are associated with the network. There is no discussion of providing networking transmission service, no observing, and no billing based on a service having a second characteristic rather than a service having the promised first characteristic.

Further, if, as indicated in the Response to Arguments section of the Office Action of 26 March 2002, the security provided is analogous to the claimed characteristic, there is still no teaching or suggestion that the networking transmission service subscriber is billed according to the level of security provided. In fact, the security is ancillary to any billing that happens. The consumer in the reference is billed according to his purchase, not on the quality of service or characteristic of network service the consumer receives. Applicant is being repetitive in its arguments, but the citations provided by the Patent Office are quite simply irrelevant on face. If the Patent Office is construing the cited language against its facial meaning, then the Patent Office has a duty to explain how that interpretation relates to the claim language.

The Patent Office confusingly states "and billing the subscriber for the secure, cost effective secure (col 2 lines 42-50) networking transmission service having the second

⁶ "In accordance with the method shown in the flow chart of FIG. 2, for example, in step 11 provider 2 establishes agreements with vendors 5.1-5.n who are connected directly to the Internet, with vendors 6.1-6.n who access the Internet via access network 3 and provider 2, and with vendors 8.1-8.n who are connected to the Internet 1 via access network 7 and provider 9, to bill customers 4.1-4.n for goods and services purchased by them over the Internet from vendors 5.1-5.n, 6.1-6.n and 8.1-8.n. Provider 2 also agrees to remit a portion of the collected money back to the vendors. Provider 2 also establishes an agreement with each of customers 4.1-4.n. These agreements provide that the provider will bill the customer for goods and services purchased by them over the Internet. The billing will be done to billing accounts established in connection with the agreements. The billing accounts can be, for example, credit card accounts, telephone accounts, cable television accounts, on-line services accounts, or bank accounts. The accounts need not be with the provider if the provider has a billing agreement in place with the party with whom the account was established." (col. 4, line 56-col. 5, line 10)

⁷ "As noted above, the billing account is not necessarily with the provider, that is, it can be with a third party such as a bank issuing a credit card, or a bank at which the customer has a bank account. Alternatively, the provider can be a first telephone company, but the billing account can be with a second telephone company and charged by the first telephone company to the telephone number account of the customer with the second telephone company, as is customarily done in connection with conventional telecommunications services." (col. 6, lines 36-46)

characteristic with the vendor rather than the service having the first characteristic (Fig. 2/16)(col. 4 line 57-col. 5 line 10).” These passages offer no new insight into how the alleged security concerns equate to the claimed characteristic or how the billing changes based on observed differences in the characteristics.

The Patent Office concludes its shotgun citation approach with a citation to col. 2, lines 42-50 stating that this passage teaches network security maintaining consequent quality of service for the customer. The passage does say that it allows merchants to allow secure transactions for the purchase of goods and services, but the assertion that this equates to quality of service characteristics or differentiated billing based on characteristics is unsubstantiated by the reference.

As a final bit of verbiage on the claims, the Patent Office states “it would have been obvious to one of ordinary skill in the art at the time of the invention that the provision of high security in a computer network requires high quality of service.” This is a non sequitur. There is no explanation of why security requires a high quality of service. In fact, as pointed out above, the most secure service is illegible to all. The proffered motivation, “to maintain no loss in transmitted/received digital signals(packets) to maintain communications security as taught by Egendorf,” is also nonsensical. Egendorf advocates a secure network, but nowhere does he equate that to a network that does not lose packets, nor is there any indication of how promoting an absence of packet loss equates to differential billing based on differentiated qualities of service, which is what is claimed.

In short, nothing in claim 1 is shown by the reference other than a computer network and billing a consumer. The consumer is not a computer network subscriber; the bill is not for networking transmission service; and the bill is not differentiated based on observing that characteristics of service provided are different from the characteristics of service promised. Random citations to sections of a non-analogous reference without any explanation of how the language of the reference equates to the claim language does not help the Applicant understand how the reference is at all relevant, nor why the claim is not patentable thereover. If the Patent Office provides a new analysis which explains how these passages, and particularly what language within these passages, relate to the claim language, Applicant reserves the right to respond to such a new argument.

Claims 6-10 depend from allowable claim 1 and are allowable for the same reasons. Claims 6-10 were rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Melen et al. The Patent Office does not assert, because it cannot support such an assertion, that Melen et al. cures the deficiencies of the Egendorf reference. Thus, in combination, the references cannot show the claim elements of claim 1, and the claims remain patentable thereover. Still further, while the Patent Office asserts that various portions of Melen et al. teach the claim elements for claims 6-10, these citations follow the Patent Office's shotgun approach to citations in this case. No analysis is provided as to what elements in the reference equate to what elements in the claim language, and Applicant refuses to engage in speculation as to how the Patent Office intended to interpret the language of the reference. A close reading of the citations and a comparison to the claim language shows that there is quite simply no correlation between the two, and the rejection is completely unfounded.

2. Claims 2-4

Claims 2-4 stand or fall together. Claim 2 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf. Claim 2 depends from claim 1, and since claim 1 is patentable over the reference of record, claim 2, and its dependents 3 and 4 are also patentable. However, claim 2 is independently patentable over the reference of record because the reference of record does not show "determining. . .that resources are not available for providing the first level of service. . . and . . .providing a second level of secure networking transmission service. . . ." The Patent Office points to col. 2, line 12 of Egendorf for the determining step, but this is quite simply not supported by the cited passage. No analysis is provided for how "A provider establishes an agreement with a customer, and a second agreement with a vendor" equates to the claimed determining. The Patent Office then cites col. 5, lines 43-60 and col. 2, lines 11-50 for the second part of the claim. Nothing in either passage teaches the claim elements. This sort of generalized citation, without analysis and explicit equation of claim language to reference language, makes responding nigh on impossible as the Applicant must prove a negative. However, a thorough reading shows that the reference never provides a different level of networking transmission service if the network resources are insufficient to support a first level of networking transmission service.

If the Patent Office provides new analysis of how the passages relate to the claim elements, Applicant reserves the right to respond in its Reply Brief.

Claim 3 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf. Claim 3 stands or falls with claim 2. Claim 4 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Hilt et al. The Patent Office in support of this rejection states that Hilt et al. teaches the method of claim 3, **despite the fact that Hilt et al. was not cited against claim 3**. This sort of casual disregard for which claims are being rejected by which reference does not put the efforts of the Patent Office in the best light. The Patent Office, then applying its familiar shotgun approach, cites col. 13 line 67-col. 14, line 31; col. 15, lines 2-55; col. 22, lines 2-17; and Fig. 12/158/124 of Hilt et al. for the proposition that the claim elements in claim 4 are shown. Again, there is no analysis as to which elements in the reference correspond to the claim elements, nor is there any detail about how the reference is being construed. Applicant has read the cited passages carefully, and there is no teaching or suggestion within the cited passage that teaches reassessing and redefining the deployed networking transmission service (claim 3) or determining whether reassessment and redefining was successful (claim 4). The passages all deal with changing which entity pays bills to the vender. This is not, under any reasonable interpretation of the claim language, “determining whether reassessment and redefining of the deployed networking transmission policy was successful.”

Further, there is nothing in Hilt et al. that cures the deficiencies of the underlying Egendorf reference with respect to claims 1 or 2. Since neither reference shows the subject matter of claim 4, the combination of references does not teach or suggest the subject matter of claim 4, and the claim is patentably distinct over the references of record. It is unclear what relevance the payment of bills has to the rejection since Applicant is unconcerned with the payment of bills; Applicant’s claims do not relate to the payment of bills, but rather to the generation of a proper bill for services rendered as opposed to services promised; and there is still no teaching or suggestion of differentiating the billing of the subscriber based on the quality of service received.

3. Claim 5

Claim 5 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Hilt et al. Claim 5 recites determining whether there has been packet loss. The Patent Office points to col. 16, line 57- col. 17, line 13 of Hilt et al. for this teaching. However, the cited passage, while it does discuss a packet assembler, makes no teaching or suggestion that packet loss is tracked or determined in any way by the packet assembly. Thus, claim 5 is independently

patentable because the determination of packet loss is not taught or suggested by the reference of record.

4. Claims 11, 12, and 17-20

Claim 11 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf. Most of the analysis with respect to claim 1 is pertinent here. However, claim 11 recites some of the functionality using slightly different terminology, thus providing slightly different claim coverage. While perhaps subtle, this difference makes claims 1 and 11 patentably distinct from one another and merits discussion separately.

Claim 11 recites “providing a computer network subscriber with a networking policy having a first level of service. . . .” Whereas claim 1 used the general term “characteristic,” claim 11 makes it clear that the present invention is for use on level of service. If by some stretch the “security” or “vendor” of Egendorf fall within some definition of a characteristic, they clearly are not within the scope of any reasonable definition of “level of service.”

The Patent Office asserts that the first element of claim 11 is shown in col. 1, lines 4-6 and col. 1, line 54-col. 2, line 8. These passages are reproduced above and teach, quite simply, no such thing. The cited passages discuss the objects of the invention and that consumers, vendors, and access providers may work together in a common billing scheme. There is no suggestion that the consumer is a computer network subscriber purchasing a networking policy having a first level of service.

The claim then recites “collecting data from the computer network using an accounting process that collects different kinds of metrics from the computer network, correlates the metrics to specified computer network flows, and relates the collected and correlated metrics back to the policy that was defined with the first level of service. . . .” The Patent Office points, in its shotgun fashion, to col. 2 lines 11-27; col. 2, lines 28-36; col. 4, line 56-col. 5, line 10; and col. 6, lines 36-46 for this teaching. Most of these passages have been reproduced above with respect to claim 1. None of the cited passages teach or suggest, under any reasonable interpretation of the claim language, the collecting of metrics. The passages instead focus on collecting payment information, relating it to the provider such as the phone company, billing the consumer from the provider, and paying the vendor from the provider. This is not collecting metrics, collating, correlating them and relating them back to the policy that was defined with the first level of service, and the claim element has not been shown.

The Patent Office asserts that Egendorf teaches network security maintaining consequent quality of service for the customer (allegedly at col. 2, lines 42-50). This generalized assertion is not applied to any particular claim element, but on the basis of the remarks, the Patent Office's position appears to be that because Egendorf is concerned with security, he maintains a high quality of service. Applicant has sufficiently addressed this above as a non sequitur. Further, even if this analysis is proper, there is still no connection between the desire for a high quality of service to guarantee security and evaluating metrics and relating them back to the policy that was defined with the first level of service. Such leaps of logic are not supported in the reference or in any of the readily available knowledge of those in the industry. Certainly the Patent Office has provided no support for how this leap of logic occurred, or even if this is how the reference is being interpreted. The reference makes no connection between quality of service and security, or how high security implies high quality of service. Thus, all of the assumptions of the Patent Office rely on an assertion that it would have been inherent to have a high quality of service to have a secure network. Even if this is true, a point which Applicant does not concede, there remains a disconnect between this position and changing the billing to the subscriber based on different levels of service provided.

The final clause of the claim recites "billing the computer network subscriber for the networking policy having a second level of service rather than for the policy having the first level of service." The Patent Office lumps this in with the second clause, but as explained above, these passages provide no support for the Patent Office's position and the rejection fails to make a *prima facie* case of obviousness. Quite simply, the reference teaches nothing in the claim.

Claims 12 and 17-20 depend from allowable claim 11 and are allowable for the same reasons. Claim 12 has the same rejection as claim 11 and stands or falls readily therewith.

The Patent Office rejected claims 17-20 under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Melen et al. As explained above, Melen et al. does not cure the deficiencies of Egendorf. Since the references individually do not teach or suggest the claim elements, the combination fails to teach or suggest the claim elements, and the Patent Office has failed to make a *prima facie* case of obviousness.

5. Claims 13-15

Claims 13 and 14 were rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf. Claim 13 depends from claim 11, and since claim 11 is patentable over the reference

of record, claim 13, and its dependents 14 and 15 are also patentable. However, claim 13 is independently patentable over the reference of record because the reference of record does not show “determining. . .that resources are not available for providing the transmission service at the first level of service and. . .providing a second level of networking service.” The Patent Office cites col. 5, lines 43-60 and col. 2, lines 11-50 for this teaching. Nothing in either passage teaches the claim elements. This sort of generalized citation, without analysis and explicit equation of claim language to reference language, makes responding virtually impossible as the Applicant must prove a negative. However, a thorough reading shows that the reference never provides a different level of networking transmission service if the network resources are insufficient to support a first level of networking transmission service.

Claim 14 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf. Claim 14 stands or falls with claim 13. Claim 15 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Hilt et al. The Patent Office, in support of this rejection, states that Hilt et al. teaches the method of claim 14, **despite the fact that Hilt et al. was not cited against claim 14.** The Patent Office, then applying its familiar shotgun approach, cites col. 13 line 67-col. 14, line 31; col. 15, lines 2-55; col. 22, lines 2-17; and Fig. 12/158/124 for the proposition that the claim elements in claim 14 are shown. Again, there is no analysis as to which elements in the reference correspond to the claim elements, nor is there any detail about how the reference is being construed. Applicant has read the cited passages carefully, and there is no teaching or suggestion within the cited passage that teaches reassessing and redefining the deployed networking transmission service (claim 14) or determining whether reassessment and redefining was successful (claim 15). The passages all deal with changing which entity pays bills to the vender. This is not, under any reasonable interpretation of the claim language, “determining whether reassessment and redefining of the deployed networking transmission policy was successful.”

Further, there is nothing in Hilt et al. that cures the deficiencies of the underlying Egendorf reference with respect to claims 11 or 13. Since neither reference shows the subject matter of claim 15, the combination of references does not teach or suggest the subject matter of claim 14, and the claim is patentably distinct over the references of record.

6. Claim 16

Claim 16 was rejected under 35 U.S.C. § 103 as being unpatentable over Egendorf in view of Hilt et al. Claim 16 recites determining whether there has been packet loss. The Patent Office points to col. 16, line 57- col. 17, line 13 for this teaching. However, the cited passage, while it does discuss a packet assembler, makes no teaching or suggestion that packet loss is tracked or determined in any way. Thus, claim 16 is independently patentable because the determination of packet loss is not taught or suggested by the reference of record.

F. Conclusion

The Patent Office has cited art that is non-analogous to the present invention being directed to a billing scheme that allows consumers to purchase things through the Internet instead of finding any art that differentiated billing to a computer network subscriber based on the quality of service provided to the subscriber. Even if the references are analogous, the Patent Office, by relying on a shotgun approach when citing to the references and failing to articulate explicitly where in the references any of the claim elements may be found, has hindered the prosecution of the present application. When the claim elements are given any reasonable interpretation, the references fail to show the claim elements. Assertions by the Patent Office that concerns about security are the same as differentiating billing based on different levels of service or different characteristics provided to the subscriber are not sufficient to make a *prima facie* case of obviousness, and the claims are allowable over the references of record.

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(9) APPENDIX

1. A computer implemented method comprising

providing a computer network subscriber with a networking transmission service having a first characteristic,

observing at the network that the provided networking transmission service to the computer network subscriber has a second characteristic; and

billing the computer network subscriber for the networking transmission service having the second characteristic rather than for the service having the first characteristic.

2. The method of claim 1 wherein observing further comprises:

determining at the network that resources are not available for providing the first level of networking transmission service; and, in response to said determination,

providing a second level of networking transmission service.

3. The method of claim 2 wherein providing the second level of networking transmission service further comprises:

reassessing and redefining the deployed networking transmission service.

4. The method of claim 3 further comprising:

determining whether reassessment and redefining of the deployed networking transmission policy was successful.

5. The method of claim 1 further comprising:

determining whether there has been packet loss; and

wherein determining packet loss comprises:

deploying a packet detector monitor in the network to generate network accounting records that can be used to determine packet loss.

6. The method of claim 1 wherein providing further comprises:

establishing a differentiate services policy that is decomposed into a collection of configurations and deployed in a network.

7. The method of claim 1 wherein providing further comprises:

deploying the configurations to a collection of routers or switches that the customer would have access to in the network.

8. The method of claim 1 wherein observing observes a large number of network flows.

9. The method of claim 8 wherein observing further comprises:

using an accounting process that produces information at a granularity level at which the policies are actually deployed.

10. The method of claim 9 wherein the policies are deployed at the source and destination IP address, protocol and/or destination port level.

11. A computer implemented method comprising

providing a computer network subscriber with a networking policy having a first level of service,

collecting data from the computer network using an accounting process that collects different kinds of metrics from the computer network, correlates the metrics to specified computer network flows, and relates the collected and correlated metrics back to the policy that was defined with the first level of service; and

billing the computer network subscriber for the networking policy having a second level of service rather than for the policy having the first level of service.

12. The method of claim 11 further comprising:

providing an indication whether or not the policy with the first level of service is being satisfied.

13. The method of claim 11 further comprising:

determining at the network that resources are not available for providing the transmission service at the first level of service; and, in response to said determination, providing a second level of networking transmission service.

14. The method of claim 13 wherein providing the second level of networking transmission service further comprises:

reassessing and redefining the deployed networking transmission service.

15. The method of claim 14 further comprising:

determining whether reassessment and redefining of the deployed networking transmission policy was successful.

16. The method of claim 11 further comprising:

determining whether there has been packet loss and wherein determining packet loss comprises:

deploying a packet detector monitor in the network to generate network accounting records that can be used to determine packet loss.

17. The method of claim 11 wherein providing further comprises:

establishing a differentiate services policy that is decomposed into a collection of configurations and deployed in a network.

18. The method of claim 11 wherein providing further comprises:

deploying the configurations to a collection of routers or switches that the customer would have access to in the network.

19. The method of claim 11 wherein the accounting process [that] produces information at a granularity level at which the policies are actually deployed.

20. The method of claim 19 wherein the policies are deployed at source and destination IP address, protocol and/or destination port level.